

Example 1. Find the electrostatic force between a $+3.0 \mu\text{C}$ charge and a $+8.0 \mu\text{C}$ charge, 0.25 m apart.

$$F_E = \frac{kQq}{r^2}$$
$$= \frac{(9 \times 10^9)(3 \times 10^{-6})(8 \times 10^{-6})}{(.25)^2}$$

$$F_E = 3.5 \text{ N}, \text{ repulsive (like charges)}$$